



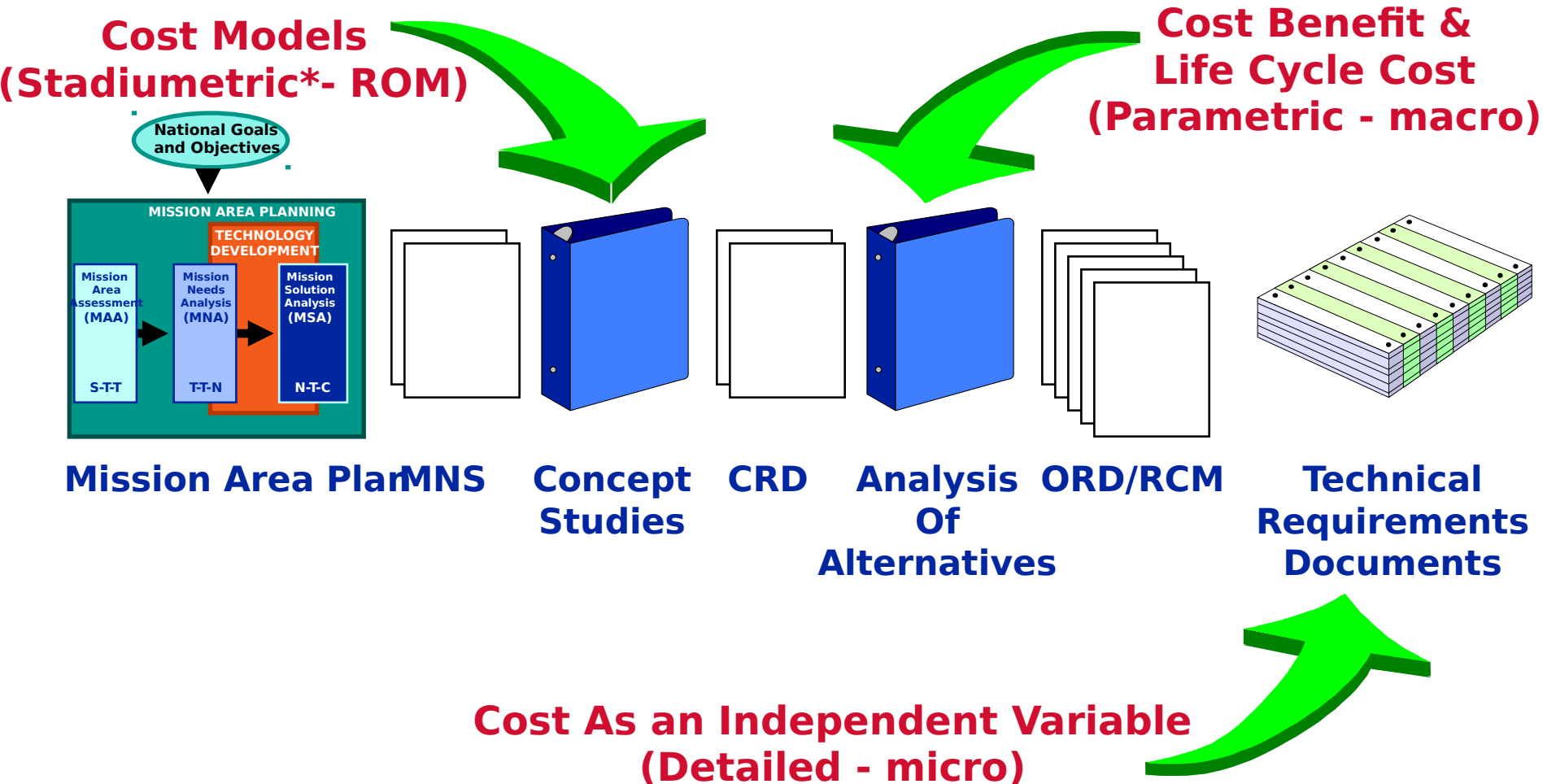
SoCal SCEA Conference 28-29 Oct 98

- **Mr. Bertrand J. Bauer, HQ Air Force Space Command**
 - **Chief, Office of Policy and Process**
 - **Co-Chair, Working Group 1 - Balancing Requirements with Cost Objectives**
- **Presentations Sponsored for WG-1**
 - **Requirements Tools used in the AFSPC Requirements Analysis Center - Mr. Larry Rainey, Aerospace**
 - **Evolved Expendable Launch Vehicle, Lt Col Jack Anthony, AFSPC/DRS, Space Support Division**
 - **Global Positioning System - Col Mike Arnett, AFSPC/DRN, Chief, GPS Division**



Cost Estimates that Support Requirements

COST STUDIES DURING REQUIREMENTS GENERATION



*STADIUMETRIC = IN THE BALL PARK



Cost Estimates that Support Requirements

- **Cost Estimates in Support of the MNS/CRD Development Are ROM Estimates to Differentiate Alternative Concepts/Capabilities**
 - Not Detailed - After MNS is Approved - Used for Planning
- **AoA Is Done **Before ORD** and Used by Operators to Develop ORD**
 - AoA Uses Parametrics for Programming
 - AoA Is Macro Cost Analysis to Compare Solutions/CONOPS
 - AoA is Sensitivity Analysis Between Cost and Effectiveness
- **CAIV Methodology Considers Relationships Between Requirements and Cost **After the ORD** and Used by Developers to Meet Budget**
 - CAIV Is a Micro Cost Analysis at Subsystem/Component Levels
 - CAIV Is Sensitivity Analysis Between Cost and Performance
 - CAIV Identifies Performance Cost Drivers to Stay within Budget

OPERATIONAL THRESHOLDS ARE INVIOABLE
CAIV Examines Trade Space between Thresholds and Objectives



Timeline

MOSTLY IN HOUSE

SOME CONTRACT SUPPORT

MOSTLY CONTRACT SUPPORT

COST



**MISSION
AREA
PLAN**

**M
N
S**

STUDIES

**O
R
D**

6

**CSEL
GUPS
PRP
GRP
BMEWS UPGRADE**

**EELV(NLS, ALS, Spacelifter)
SBIRS(SBWAS, SBS, FEWS, ALERT)
SPACE BASED RADAR
SPACE BASED LASER
SOV(NASP, Spaceplane)**

**CONCEPT STUDIES, TRADE STUDIES
ANALYSIS OF ALTERNATIVES**

**O
R
D**

14+

**TECHNOLOGY INSERTION
COST AS AN INDEPENDENT VARIABLE
LIFE CYCLE COST
TOTAL OWNERSHIP COST**